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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/701,634	12/01/2000	Makoto Miyazawa	Q61929	8039

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EXAMINER
MARKHAM, WESLEY D

ART UNIT	PAPER NUMBER
1762	22

DATE MAILED: 08/13/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-22

Office Action Summary	Application No.	Applicant(s)	
	09/701,634	MIYAZAWA, MAKOTO	
	Examiner	Art Unit	
	Wesley D Markham	1762	

-- The MAILING DATE of this c mmunication appears on the cover she t with the corresp ndence address --

Period f r Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 June 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-4,11,12,14 and 15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-4,11,12,14 and 15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12/1/00 and 3/4/02* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application as paper #20 on 6/12/2003 after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office Action (i.e., the final Office Action, paper #16, mailed on 12/12/2002) has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 6/12/2003 has been entered.

Response to Amendment

2. Acknowledgement is made of applicant's amendment E, filed as paper #21 on 6/12/2003, in which Claims 1 and 14 were amended, Claims 5 and 13 were canceled, and Claim 15 was added. Claims 1 – 4, 11, 12, 14, and 15 are currently pending in U.S. Application Serial No. 09/701,634, which is a 371 (i.e., National Stage) Application of PCT/JP00/02099, filed on 3/31/2000. An Office Action on the merits follows.

Drawings

3. The formal drawings, specifically Figures 1, 2(a) and (b), 3, and 4(a) and (b), filed on 12/1/2000, and corrected Figure 5, filed on 3/4/2002 as paper #10, are approved by the examiner.

Claim Objections

4. Claims 2, 11, and 14 are objected to because of the following informalities:

   - Claim 2, lines 1 – 2: The phrase, "...producing a spectacle lens according the claim 1..." appears to contain a typographical error. It appears as though the phrase should read, "...producing a spectacle lens according to claim 1..."
   - Claim 11, line 2: The phrase, "wherein said edging is about 1 mm larger..." appears to contain a typographical error. It appears as though the phrase should read, "wherein said edging line is about 1 mm larger..."
   - Claim 14, lines 1 – 2: The phrase, "wherein the dyeing step is gradation dyeing step" appears to contain a typographical error. It appears as though the phrase should read, "wherein the dyeing step is a gradation dyeing step".

Appropriate correction is required.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1 – 4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (JP 09-99444 A) in view of Logan et al. (USPN 4,711,035), in further view of

Wood et al. (USPN 5,053,971), and in further view of either Blomberg et al. (USPN 6,242,065 B1) or the applicant's admitted prior art (AAPA).

7. Regarding independent Claim 1 (from which Claims 2 – 4 and 11 depend), Kato teaches the general method of producing a spectacle lens which comprises a marking step of depicting production information of the spectacle lens in a region of the surface of the spectacle lens to be cut off by edging. Specifically, Kato teaches providing reference marks in the unfinished lens's outer periphery to be cut off by edging (Solution and Figure 1). Kato does not explicitly teach (1) a step of receiving spectacle frame information, (2) a marking step of depicting production information of the spectacle lens including an edging mark, which indicates a first region of the lens remaining after an edging matched with an inner peripheral edge of openings of the spectacle frame, on the basis of the spectacle frame information, and (3) providing the aforementioned edging mark at a position outside the first region of the spectacle lens, in a region to be cut off by edging. However, as previously noted, it is the clear intention of Kato to produce a spectacle lens (Title) by cutting the unfinished lens to a "predetermined lens diameter" (Solution). Kato is silent as to how the lens is cut to the desired diameter. Logan et al. teach that the optical industry generally produces a pattern having the size and shape of a lens opening in an eyeglass frame for use as a guide in an edge grinding and contouring apparatus to peripherally edge grind the optical lens to the size and shape of the lens opening. The shape of the lens opening is transferred to the surface of the lens blank by tracing the outline of the inner periphery of the lens opening with a marker. The

blank is then cut following the outline on the blank surface to form a pattern corresponding to the associated traced lens opening (Col.1, lines 15 – 30). Therefore, Logan et al. teaches (1) a step of receiving spectacle frame information, and (2) a marking step of depicting production information of the spectacle lens including an edging mark, which indicates a first region of the lens remaining after an edging matched with an inner peripheral edge of openings of the spectacle frame, on the basis of the spectacle frame information. It would have been obvious to one of ordinary skill in the art to utilize the marking / cutting method taught by Logan et al. in order to cut the unfinished lens of Kato et al. to its desired size and shape with the reasonable expectation of successfully and advantageously cutting the lens of Kato to its desired finished diameter, as Logan et al. teach that this method is a method generally used in the art for cutting spectacle lenses to fit a spectacle frame. As such, the combination of Kato and Logan et al. teaches an edging step of cutting the spectacle lens into the shape of the inner peripheral edge of openings of the spectacle frame to remove the second region (i.e., the region cut off by edging), as required by the applicant's claims ("Solution" of Kato, and Col.1, lines 15 – 30 of Logan et al.). The combination of Kato and Logan et al. does not explicitly teach that this edging line is marked and positioned outside the first region of the spectacle lens (i.e., in a region to be cut off by edging). However, Kato desires to provide marks on the surface of the unfinished spectacle lens in a region that is later cut off. Therefore, the marks are not present at the time of lens delivery (Solution). Wood et al. teach that it was known at the time of the applicant's invention to map the surface

of a lens at a slightly greater radius than the desired finished edge of the lens in order to avoid creating scratches on the surface of the lens (Col.8, lines 1 – 5). Based on these teachings, it would have been obvious to one of ordinary skill in the art to provide the edging line of Logan et al. at a slightly larger diameter than the desired finished lens diameter (i.e., to provide the edging line in a region to be cut off by edging – outside the first region of the lens and in the second region) with the reasonable expectation of successfully and advantageously producing a finished spectacle lens that does not have marks present on the lens at the time of lens delivery as desired by Kato. Please note that, as the combination of Kato, Logan et al., and Wood et al. teaches a method of processing a spectacle lens, the step of "forming the spectacle lens" claimed by the applicant is necessarily / inherently present (i.e., in order to perform process steps on a spectacle lens, the lens must first be "formed"). The combination of Kato, Logan et al., and Wood et al. does not explicitly teach that, after the marking step, at least one step selected from the group consisting of a polishing step, a dyeing step, a hard coat formation step, and an anti-reflection coating formation step is performed, after which the edging mark remains on the spectacle lens. Specifically, while the combination of Kato, Logan et al., and Wood et al. suggests the applicant's claimed marking and edging steps (see the detailed discussion above), the combination is silent as to intermediate lens processing steps that take place between the marking and edging steps. However, Blomberg et al. teaches that, in the art of producing a spectacle lens (Col.1, lines 19 – 25), a normal process includes lens molding, hard coating, and antireflective

coating prior to edging and placing the finished product into a lens frame (Col.8, lines 53 – 59). The AAPA also teaches that a known process for producing a spectacle lens includes the steps of dyeing, hard coat formation, and anti-reflection coating formation prior to edging the lens (see Figure 5, description in the "Background Art" section of the specification, and page 10, lines 13 – 15 of the applicant's specification). It would have been obvious to one of ordinary skill in the art to deposit a hard coating and/or antireflective coating on the marked, unfinished lens of the combination of Kato, Logan et al., and Wood et al., or to dye the lens (as taught by the AAPA) prior to edging the lens with the reasonable expectation of (1) success, as both Blomberg et al. and the AAPA teach that that such a process was known in the art at the time of the applicant's invention, and (2) obtaining the benefits of depositing a hard coating and/or antireflective coating on a spectacle lens, or dyeing a spectacle lens, such as providing a lens with superior abrasion resistance (Col.8, line 55 of Blomberg et al.) and/or reducing the amount of reflected light associated with the lens, and/or providing the lens with a desired tint or color, which is a question of aesthetics. As both Blomberg et al. and the AAPA suggest performing these steps prior to lens edging (i.e., which is the step in which the edging marks / line of the prior art is cut-off), the edging mark would have remained on the spectacle lens after the hard coating, antireflective coating, and/or dyeing steps, as required by applicant's Claim 1.

8. The combination of Kato, Logan et al., Wood et al., and either Blomberg et al. or the AAPA also teaches all the limitations of Claims 2 – 4 and 11 as set forth above in paragraph 7 and below, including a method wherein:

    - Claims 2 – 3 – The edging mark / production information is an edging line that indicates the first region of the lens remaining after the edging step (see paragraph 7 above, specifically the discussion of Logan et al.).
    - Claim 4 – The production information of the lens includes reference position marks indicating the vertical direction of the spectacle lens ("Solution" and Figure 1 of Kato).
    - Claim 11 - The edging line is about 1 mm larger than and the same shape as the inner peripheral edge of an opening of the spectacle frame. Specifically, Wood et al. suggests mapping the lens at a radius 0.02" (i.e., 0.5 mm) greater than the desired finished lens edge dimensions (which correspond to the size and shape of the eyeglass frame opening) (Col.7, lines 45 – 51, and Col.8, lines 1 – 5). 0.5 mm (as taught by Wood et al.) has been reasonably interpreted by the examiner to be "about 1 mm", as claimed by the applicant.

9. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (JP 09-99444 A) in view of Logan et al. (USPN 4,711,035), in further view of Wood et al. (USPN 5,053,971), in further view of either Blomberg et al. (USPN 6,242,065 B1) or

the applicant's admitted prior art (AAPA), and in further view of Komatsu et al. (JP 06-191159 A).

10. The combination of Kato, Logan et al., Wood et al., and either Blomberg et al. or the AAPA teaches all the limitations of Claim 12 as set forth above in paragraph 7, except for a method wherein the edging mark is depicted by irradiating the spectacle lens with a laser beam. However, Komatsu et al. teaches a method / apparatus that provides laser markings on the surface of a lens (Constitution). Komatsu et al. also teaches that this apparatus performs marking operations simply, and that the laser beams can be adjusted easily (Purpose). Therefore, it would have been obvious to one of ordinary skill in the art to utilize the laser marking method of Komatsu et al. as the marking method of the combination of Kato, Logan et al., Wood et al., and either Blomberg et al. or the AAPA with the reasonable expectation of successfully providing edging lines / markings on the spectacle lens simply and easily as taught by Komatsu et al.

11. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (JP 09-99444 A) in view of Logan et al. (USPN 4,711,035), in further view of Wood et al. (USPN 5,053,971), in further view of the applicant's admitted prior art (AAPA), and in further view of Elias et al. (USPN 4,915,986).

12. The combination of Kato, Logan et al., Wood et al., and the AAPA teaches all the limitations of Claim 14 as set forth above in paragraph 7, except for a method wherein the dyeing step is a gradation dyeing step. Specifically, the AAPA is silent

as to the particulars of the dyeing step. However, Elias et al. teaches that, in the art of producing eyeglass lenses (Abstract), it was known at the time of the applicant's invention to either solidly, uniformly tint the lenses or to gradient tint (i.e., gradation dye) the lenses (Abstract and Col.1, lines 5 – 17). Therefore, it would have been obvious to one of ordinary skill in the art to gradation dye the lenses of the combination of Kato, Logan et al., Wood et al., and the AAPA with the reasonable expectation of (1) success, as Elias et al. teaches that such a process was known in the art at the time of the applicant's invention, and (2) obtaining a lens having a desirable aesthetic quality (i.e., a gradient tint). Whether the lenses would be solidly tinted or gradation dyed is a question of aesthetics that would be determined by a purveyor in the art depending on the desired appearance of the finished lens.

13. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (JP 09-99444 A) in view of Logan et al. (USPN 4,711,035), in further view of Wood et al. (USPN 5,053,971), in further view of Blomberg et al. (USPN 6,242,065 B1), in further view of Friedman (USPN 6,159,397), and in further view of Elias et al. (USPN 4,915,986).

14. The combination of Kato, Logan et al., Wood et al., and Blomberg et al. teaches all the limitations of Claim 14 as set forth above in paragraph 7, except for a method wherein after the marking step, a gradation dyeing step of dyeing the spectacle lens is carried out, after which the edging mark remains on the spectacle lens. Specifically, while the combination of Kato, Logan et al., Wood et al., and Blomberg

et al. reasonably suggests the applicant's claimed marking and edging steps (see paragraph 7 above), the combination does not explicitly teach the claimed gradation dyeing step. However, Friedman teaches that, in the art of producing a spectacle lens (Col.2, line 49), it is conventional to perform a lens dyeing step prior to edging the lens to a desired shape so as to fit the shape and size of an eyeglass frame (Col.2, lines 38 – 46). It would have been obvious to one of ordinary skill in the art to dye the lens of the combination of Kato, Logan et al., Wood et al., and Blomberg et al. prior to edging the lens with the reasonable expectation of (1) success, as Friedman teaches that that such a process was known in the art at the time of the applicant's invention, and (2) obtaining the benefits of dyeing the lens, such as producing a lens having a desired color or tint (i.e., color or tint being a simple question of aesthetics). As Friedman suggests performing the dyeing step prior to lens edging (i.e., which is the step in which the edging marks / line of the prior art is cut-off), the edging mark would have remained on the spectacle lens after the dyeing step, as required by the applicant's claim. The combination of Kato, Logan et al., Wood et al., Blomberg et al., and Friedman does not explicitly teach that the dyeing step is a gradation dyeing step. Specifically, Friedman is silent as to the particulars of the dyeing step. However, Elias et al. teaches that, in the art of producing eyeglass lenses (Abstract), it was known at the time of the applicant's invention to either solidly, uniformly tint the lenses or to gradient tint (i.e., gradation dye) the lenses (Abstract and Col.1, lines 5 – 17). Therefore, it would have been obvious to one of ordinary skill in the art to gradation dye the lenses with the reasonable

expectation of (1) success, as Elias et al. teaches that such as process was known in the art at the time of the applicant's invention, and (2) obtaining a lens having a desirable aesthetic quality (i.e., a gradient tint). Whether the lenses would be solidly tinted or gradation dyed is a question of aesthetics that would be determined by a purveyor in the art depending on the desired appearance of the finished lens.

15. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kato (JP 09-99444 A) in view of Logan et al. (USPN 4,711,035), in further view of Wood et al. (USPN 5,053,971), and in further view of the applicant's admitted prior art (AAPA).

16. The combination of Kato, Logan et al., Wood et al., and the AAPA teaches all the limitations of Claim 15 as set forth above in paragraph 7 and in the discussion below. Specifically, dependent Claim 15 requires that the method for producing a spectacle lens further comprises an appearance inspection step of inspecting only the first region of the spectacle lens (i.e., the region remaining after the edging step matched with an inner peripheral edge of spectacle frame openings), wherein the appearance inspection step is performed prior to the edging step. Regarding this limitation, the combination of Kato, Logan et al., Wood et al., and the AAPA reasonably suggests performing a marking step of depicting (i.e., with a marker) an edging mark / line that indicates a first region of the lens remaining after edging on the surface of the lens, the edging line matched with the inner peripheral edge of spectacle frame openings (see paragraph 7 above). Further, the AAPA teaches that it was known in the art at the time of the applicant's invention to perform an

appearance inspection step prior to the edging step in order to guarantee the appearance quality of the lens (Figure 5, page 3, lines 14 – 16, page 5, lines 10 – 13 and 19 – 24, page 6, lines 1 – 19, and page 10, lines 13 – 15, of the applicant's specification). Therefore, it would have been obvious to one of ordinary skill in the art to perform an appearance inspection step of inspecting the spectacle lens of the combination of Kato, Logan et al., Wood et al., and the AAPA prior to the edging step with the reasonable expectation of successfully and advantageously guaranteeing the appearance quality of the lens (i.e., insuring high product quality). The combination of Kato, Logan et al., Wood et al., and the AAPA does not explicitly teach that only the first region of the spectacle lens is inspected during the appearance inspection step. However, it is clearly the function of the "appearance inspection" step of the AAPA to guarantee the quality of the finished lens. Since the combination of Kato, Logan et al., Wood et al., and the AAPA reasonably suggests physically marking an edging line on the surface of a lens blank, the edging line depicting the portion of the lens blank that will remain after edging (i.e., the first region of the lens) (see paragraph 7 above), it would have been obvious to one of ordinary skill in the art to inspect only the region of the lens blank that will become the finished lens (i.e., the applicant's claimed "first region") so as to advantageously guarantee the quality of the finished lens (as desired by the AAPA) without spending unnecessary time and effort inspecting a portion of the lens blank that will be edged-off and not form part of the finished lens. In other words, since an edging line is depicted on the lens blank of the combination of Kato, Logan et al., Wood et al., and

the AAPA, there would be no reason for one of ordinary skill in the art to inspect the portion of the lens blank that will be edged-off and discarded (i.e., everything but the "first region" of the lens) because the quality of this region would not need to be guaranteed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wesley D Markham whose telephone number is (703) 308-7557. The examiner can normally be reached on Monday - Friday, 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Wesley D Markham
Examiner
Art Unit 1762

WDM
August 11, 2003

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